

CLAIMS

1. A process for treating a natural rubber latex article intended for use in contact with human tissue, to eliminate or reduce to negligible levels antigenic latex protein normally present in the article, comprising the steps of:

providing a latex article manufactured in accordance with conventional techniques; and exposing the article for a short period of time to a gaseous mixture containing a small proportion of an oxidizing agent.

2. A process as claimed in claim 1, wherein:
the article is placed in a chamber, and the gaseous mixture is introduced into the chamber for exposure of the article to the gaseous mixture.

3. A process as claimed in claim 2, wherein:
the oxidizing agent comprises up to about 5%, by volume, of the gaseous mixture, and the remaining 95% of the gaseous mixture comprises an inert gas.

4. A process as claimed in claim 3, wherein:
the oxidizing agent comprises fluorine gas and the inert gas comprises nitrogen gas.

5. A process as claimed in claim 1, wherein:
the temperature of the gaseous mixture introduced into the chamber is about 72 °F and the pressure is about 14.7 psi.

6. A process as claimed in claim 4, wherein:
the temperature of the gaseous mixture introduced into the chamber is about 72 °F and the pressure is about 14.7 psi.

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7. A process as claimed in claim 1, wherein:

the article is placed in a chamber, the chamber is evacuated to purge it of oxygen, and the gaseous mixture is introduced into the chamber for exposure of the article to the gaseous mixture;

5 the oxidizing agent comprises up to about 5%, by volume, of the gaseous mixture, and the remaining 95% of the gaseous mixture comprises an inert gas;

the oxidizing agent comprises fluorine gas and the inert gas comprises nitrogen gas;
the temperature of the gaseous mixture introduced into the chamber is about 72 °F and the pressure is about 14.7 psi; and

the time during which the article is exposed to the gaseous mixture in the chamber is about three minutes.

8. A process as claimed in claim 7, wherein:

the gaseous mixture comprises from about 15% to about 20%, by volume, of the volume of the chamber.

~~9.~~ A process for treating a natural rubber latex article to eliminate or reduce to negligible levels the latex protein normally found therein to make the article safe for contact with a person sensitive to the protein, comprising the steps of:

5 manufacturing a latex article in accordance with conventional techniques;
providing a chamber useful for fluorinating articles;
placing at least one said article in the chamber, sealing the chamber and purging it of extraneous oxidizing agents;

10 introducing a gaseous mixture containing a suitable oxidizing agent into the chamber under predetermined pressure and temperature, and at a predetermined concentration and for a predetermined period of time, to eliminate or reduce to a negligible level the latex protein normally present in the article.

10. A process as claimed in claim 9, wherein:

the suitable oxidizing agent comprises fluorine gas.

11. A process as claimed in claim 10, wherein:
the fluorine gas comprises about 5%, by volume, of the gaseous mixture, and the remaining 95%, by volume, of the gaseous mixture, comprises an inert gas.
12. A process as claimed in claim 11, wherein:
the temperature of the gaseous mixture is about 72 °F and the pressure of the gaseous mixture is about 14.7 psi.
13. A process as claimed in claim 12, wherein:
the time during which the article is exposed to the gaseous mixture in the chamber is about three minutes.
14. A process as claimed in claim 9, wherein:
a plurality of said articles are placed loosely in the chamber.
15. A process as claimed in claim 13, wherein:
the articles comprise surgical gloves.
- ~~16.~~ A natural rubber latex article that has been treated to eliminate or reduce to a negligible level antigenic latex protein therein, and which retains the desirable physical properties such as color, strength and flexibility of an untreated latex article.